

Roessler Street Bridge Rehabilitation Project



Prepared for the City Council
by

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Roessler Street Bridge Rehabilitation Project

- Existing Conditions
- Description of Rehabilitation Work
- Proposed Final Design / Improvements
- Constraints
- Schedule
- Project Costs and Funding
- Questions

Roessler Street Bridge Rehabilitation Project



- Existing Conditions:
 - Deterioration at precast concrete beam ends
 - Includes exposed steel, cracks, and spalling of concrete
 - Bearing plates corroded, associated cracking at adjacent beams and abutments

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- Existing Conditions:
 - Several locations now plated to cover expansion joint holes in deck
 - Railings between sidewalk and roadway showing exposed steel
 - Various small holes and other defects in bridge deck
 - Other minor cracking, defects in other elements

Roessler Street Bridge Rehabilitation Project



- Rehabilitation Work Description

- Rehabilitation work very similar to Winchester project in 2010
- Open up all expansion joints, re-cast ends of concrete beams
- Replace bearing plates
- Replace expansion joints
- Patch areas in deck, diaphragms, abutments, piers as needed
- Thin deck overlay
- 20+ year rehabilitation



Roessler Street Bridge Rehabilitation Project

- Proposed Design / Improvements
 - In general, City staff wants to make Roessler Street (left), look more like Macomb Street (right)



Roessler Street Bridge Rehabilitation Project

- Railing System



- Double Railing system similar to Macomb
- Inner railings between roadway and sidewalk
- Decorative outer railings
- Allows for vistas of river from passing vehicles, pedestrians, and bicyclists



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- Railing System



- Replaces old inner railing system
- Chain link fence to be eliminated – major aesthetic improvement

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- Street Lighting



- New Light Poles identical to Riverfront Parking Lot and very similar to Macomb Street Bridge
- DTE Supplied and Maintained
- LED lamps
- Mounted on pedestals along outer railings

Roessler Street Bridge Rehabilitation Project



- Sidewalk Widening / Road Diet
 - Existing sidewalks are 5 feet wide each
 - Existing roadway is four lanes at 13 feet wide each
 - Existing total roadway – 52 feet
 - Existing total sidewalks – 10 feet

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- Sidewalk Widening / Road Diet



- Proposed sidewalks are 10 feet wide each
- Proposed roadway is three lanes at 12 feet wide each plus 2-foot outside buffer and snow storage area
- Proposed total roadway – 40 feet
- Proposed total sidewalks – 20 feet
- Doubling sidewalks, shrinking roadway by 12 feet overall

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- Comparison to Macomb Street
 - Roadway width – Macomb is 37 feet, Roessler proposed at 40
 - Sidewalk width – Macomb is 7.5 feet each side, Roessler proposed at 10 each side
 - Three lanes for each
 - Both bridges have lanes and widths appropriate to transition to adjacent approach roadways

Roessler Street Bridge Rehabilitation Project

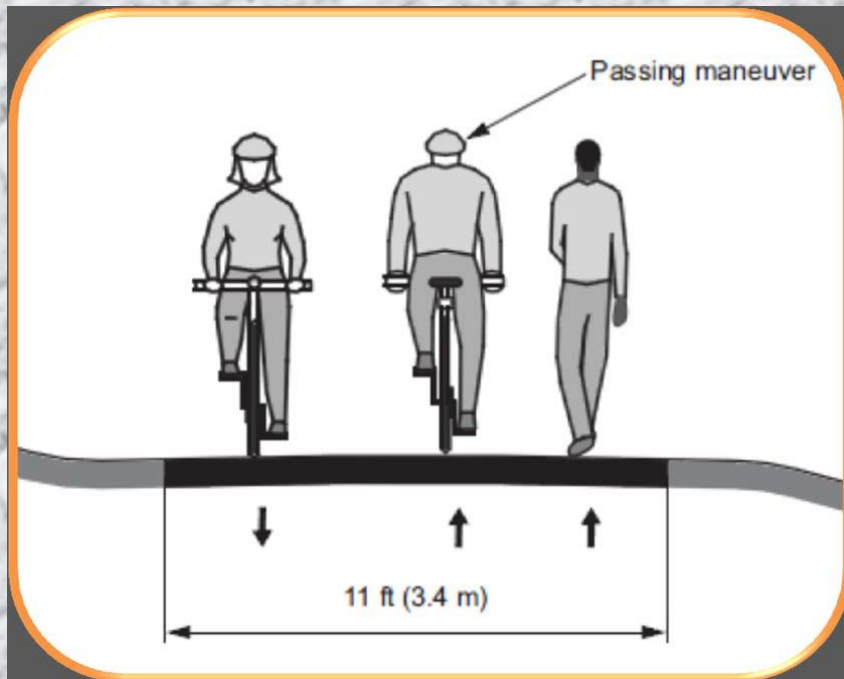


- Constraints

- Adjacent sidewalks on approaches cannot ever be practically widened
- 5-foot walk on east side
- 4 to 5-foot walk on west side, actually already on school property in some areas
- Vertical drop-off at River Park Place, tight constraints most other places

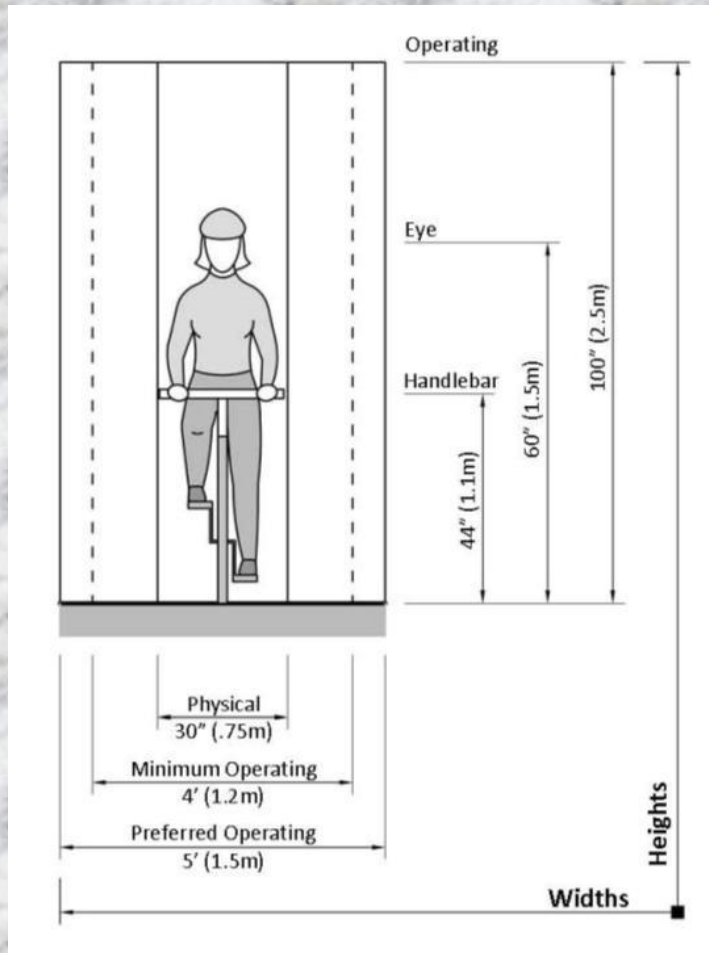
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- Constraints



- AASHTO standard for a 2-way greenway / shared use path is 10-foot absolute minimum, 11 feet if passing is allowed
- However, 2-foot clear zone on each side is typically required
- Strict AASHTO standard for 2-way shared use path would then require 14 or 15 feet in width, depending on interpretation

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- **Constraints**

- Proposed design still provides for “preferred operating” physical space for 2 bicyclists (5 feet each)
- 2.5 feet wider than Macomb Street bridge sidewalks (7.5 feet), MLK footbridge (8 feet) and wider than any other bridge crossings in the City
- Roessler Street not listed as a part of City’s greenways plan but still strive for enhanced facilities when possible

Roessler Street Bridge Rehabilitation Project



- **Schedule**

- Advertise for bids Feb. 3
- Pre-Bid Meeting Feb. 17
- Bids opened March 2
- Council award March 16
- Work start – April likely
- Roadway closed during construction
- Open to traffic no later than October 16
- Final completion Nov. 15
- Access to all driveways will be permitted

Roessler Street Bridge Rehabilitation Project



- Project Costs and Funding
 - Construction Estimate
\$1,367,000
 - Contingency (15%)
\$205,000 (estimate)
 - Design Engineering
\$51,000
 - Inspection & Management
\$120,000 (estimate)
 - City staff coordination
\$25,000 (estimate)

Roessler Street Bridge Rehabilitation Project

- Project Costs and Funding

- Total costs approximately \$1.75 million
- Funded through 2009 voter-approved 0.52 mil, 20-year ballot issue
- Thank you voters for helping us rehabilitate our bridges and improve our community at the same time

